

Construction Safety Initiatives: The Salt Lake City Experience

SALT LAKE CITY DEPARTMENT OF



AIRPORTS



Runway Construction: Safety





Runway Construction: Safety Introduction



Construction safety begins with planning and set safety standards.



Runway Construction: Safety Introduction

Any construction on or in the vicinity of a runway presents unique and important safety issues. Runways and the taxiways that serve them cannot always be closed down completely.

This requires creative yet safe solutions that allow for minimal impact on aircraft operations, yet still construct.

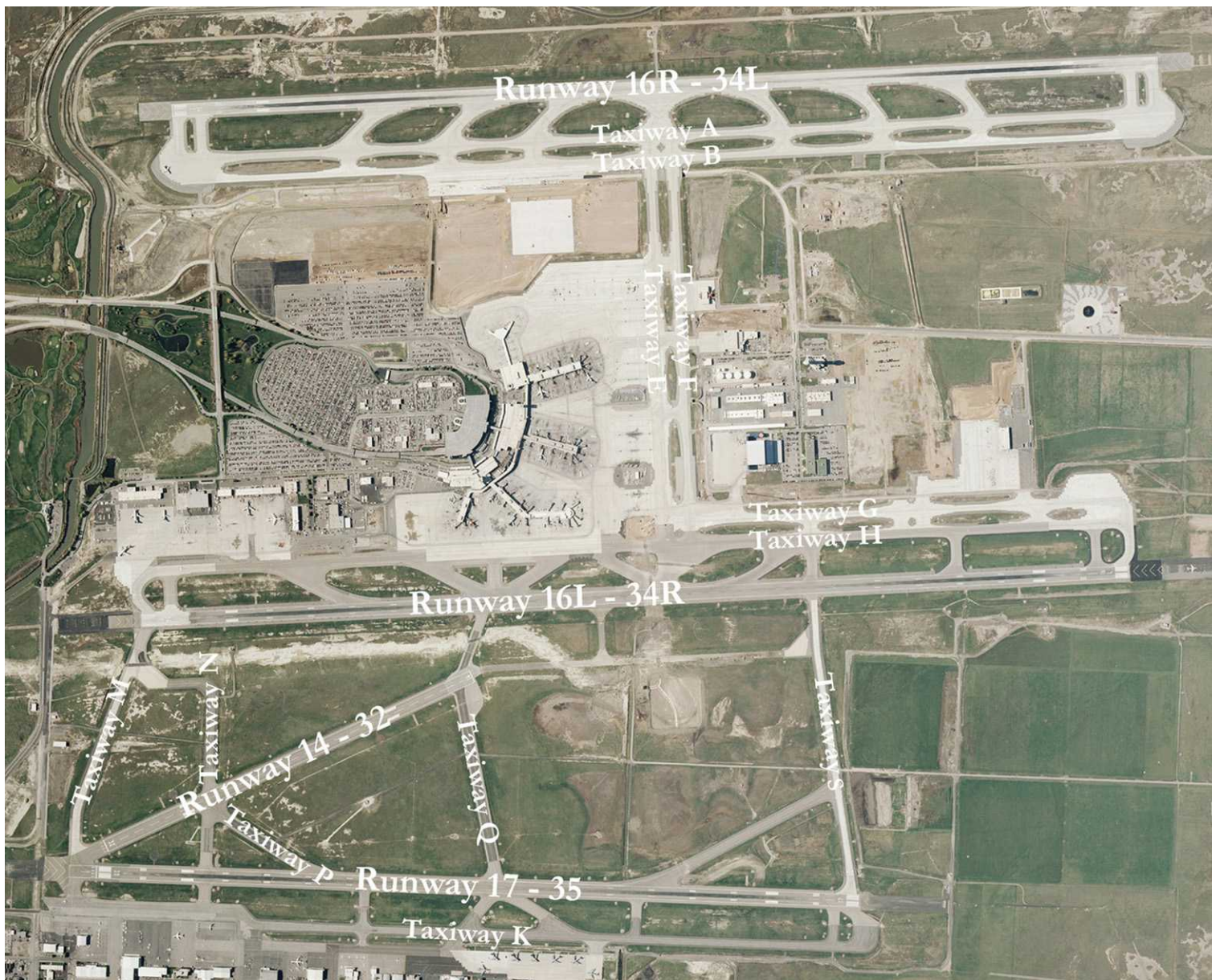


Runway Construction: Safety Introduction



Case Study

Runway 16L Drainage Pipe



Runway Construction: Safety Introduction

Standard construction safety standards are a must, and must be mutually understood by all parties involved in the construction process.

After many years of frustration, Salt Lake City International Airport personnel developed a “Construction Safety and Security Manual” that standardizes basic safety and security requirements for all projects on the airport.



Runway Construction: Safety Introduction

This manual is a part of every bid package. It is reviewed, updated and, more importantly, agreed upon annually by all of the players involved with construction at the Department of Airports.

Once you have set the rules you can move to the planning stage.



Runway Construction: Safety Planning Phases

- Runway construction safety planning can be divided into several phases:
 - the design phase
 - the shut down phase
 - the construction phase
 - and the reopen phase



Runway Construction: Safety Planning Phases

Each phase has its own problems and issues that must be planned for and resolved.

I would like to take the next few minutes to review each phase and share my opinions and experience related to each phase.



Runway Construction: Safety Planning Phases

Design Phase

Runway Construction: Safety Design Phase

Building Relationships

Involve all the players early on

Notifications

Engineering
Maintenance

Operations
Consultants

Air Carriers
General Aviation

Tenants
FAA ADO

ATC
Regional FAA



Runway Construction: Safety Design Phase



Understand the project's scope

Review plans for impacts on operations and safety

Runway Construction: Safety Design Phase

Tools to ensure safety:

Phasing Plans

Marking, Signing and
Lighting Plans

Barricade Plans and
Standards

Contractor Pre-Bid
and Pre Construction
Meetings



Runway Construction: Safety Planning Phases



Shut Down Phase

Runway Construction: Safety Shut Down Phase

Shut Down Schedule

NOTAMS

Evaluate the way aircraft will have to operate during construction.

- Access Routes
- Crossing Routes
- NAVAIDS
- Marking, Lighting and Signs
- Temporary Utilities



Runway Construction: Safety Shut Down Phase

Case Study

B/C Ramp Rehabilitation



Concourse Apron Reconstruction Drawings

Phase One – Phase Four



Runway Construction: Safety Shut Down Phase

Ensure runway and associated taxiways are marked appropriate to the operation if they are to remain open during construction.

Closed Runway Markings

Barricades

Active Runway/Taxiway Signs

Marking the Safety Areas





JetCenter

Air BP

ACTIVE
RUNWAY
DO NOT
ENTER



Runway Construction: Safety Planning Phases

Construction Phase

Runway Construction: Safety Construction Phase

Things to consider and watch for!

NOTAM management

Keep obstacle free and safety areas clear of construction personnel and equipment.

Barricade Maintenance







Marking of Safety Areas

Runway Construction: Safety Construction Phase

Things to consider and watch for!

Emergency vehicle access

Storage of construction equipment and materials

Identification of equipment and personnel





Vehicle Identification and Marking



Materials Stockpiling

Runway Construction: Safety Construction Phase

Things to consider and watch for!

Dust Control

FOD Control

Protection of Utilities

Protection of NAVAIDS



Runway Construction: Safety Construction Phase



Contractor/Engineer
construction status
and safety meetings

Runway Construction: Safety Planning Phases

Reopen Phase

Runway Construction: Safety Reopen Phase

Schedule

Markings, lights, signs and NAVIDS restored to normal

NOTAMs

Notifications



Runway Construction: Safety Resources

AC:150/5370-2C
“Operational Safety On
Airports During
Construction”

CFR 14, FAR Part 139
“Certification and
Operations; Land Airports
Serving Certain Air
Carriers”

CFR 14 FAR Part 77 “Objects
Affecting Navigable Airspace”

AC:150/5300-13 (latest edition)
“Airport Design”

Cert Alerts

AC:150/5210-5B “Painting Marking
and Lighting of Vehicles”

Runway Construction: Safety

Questions ?????

